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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,411

10/17/2005

Michael Brian Edward Bremner

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9055

279 7590 11/24/2008
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EXAMINER

OSTRUP, CLINTON T

ART UNIT

PAPER NUMBER

3771

MAIL DATE

DELIVERY MODE

11/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,411	Applicant(s) BREMNER ET AL.	
	Examiner CLINTON OSTRUP	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,10-17 and 26-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-8,10-17 and 26-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 5, 2008 has been entered.
2. Claims 1, 3-4, 6, 8, 10-17, and 26-36 are pending in this application. Claims 2, 5, 7, 9, and 18-25 have been cancelled.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

A non-initialed and/or non-dated alteration changing April 27, 2005 to April 29, 2005 appears 9 lines down on the first page of the Declaration.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 3-4, 6, 8, 10-17, and 26-36 rejected under 35 U.S.C. 103(a) as being unpatentable over Gradon et al (6,272,933) and further in view of Wittmaier et al. (4,366,821).

Gradon discloses a system for delivering a supply of gases to a patient (figure 5). Gradon discloses a gases supply (1) providing a flow of gases (indicated by arrows), a humidifier (10) receiving gases from the gases supply which is capable of humidifying the gases up to a level of humidity prior to delivery to a patient (13).

Gradon discloses a conduit (14) conveying the flow of gases from the humidifier to the patient (13), a sensor (19) to sense the humidity, temperature or flow rate of the flow of gases, wherein the sensor in use is releasably coupled in line between the humidifier (10) and the conduit (14). See: figure 3. However, Gradon lacks the sensor being exposed to a flow of gasses through a filter material with the filter material being located such that the sensor is exposed to a portion of the flow of gasses passing

through the filter material only, with a significant portion of the flow of gasses passing from the humidifier to the conduit without passing through the filter material.

Wittmaier teaches a breath monitor device (figure 2) with a sensor (14) and a heater element (30) positioned in the path of the breath flow (inside 12) and covered with a filter (27 screen or perforated portion) which would have the exposed to a flow of gasses through a filter material (27) with the filter material (27) being located such that the sensor (14) is exposed to a portion of the flow of gasses passing through the filter material only, with a significant portion (portion that does not go through 27) of the flow of gasses passing directly through without passing through the filter material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the sensor and heater element design with a filter material (27) surrounding the sensor as taught by Wittmaier, to the humidification system disclosed by Gradon in order to obtain a humidified gas delivery system that could provide a sensor that could add additional heat to gasses delivered to a patient.

Regarding claim 3, Gradon discloses an open tubular section (42) coupled to a sensor (via 31) and the sensor is exposed to the flow of gases through the open tubular section. See: figure 3.

Regarding claim 4, Gradon discloses sensors contained in a housing (31) that extends through an open tubular section (42) and at least part of the housing is exposed to said gases flow.

Regarding claim 6 Gradon discloses an open tubular section with a port (41) that said housing (31) is sealably connected to. See: figure 3.

Regarding claim 8, the combined references teach a housing (31 of Gradon) exposed to said flow of gases flow and Wittmaier teaches the housing being covered by a filter material (27).

Regarding claim 10, Wittmaier teaches a port (in 12) that is covered by a filter material (27).

Regarding claims 11-12, Wittmaier teaches a filter material that is a semi-permeable (screened or perforated) material. See: col. 3, lines 30-33.

Regarding claims 13-14, Wittmaier teaches a filter material that is a porous (27 is screened or perforated) media and modification of sizes or the perforations is well within the skill of having ordinary skill in the art and one skilled in the art would preferably make the perforations in the micron level to prevent bacteria from contacting the sensor.

Regarding claim 15, Wittmaier teaches a system that has a heater (30) which would provide heat to the sensor of Gradon (34).

Regarding claim 16, Wittmaier teaches a housing (12 & 26) comprising a heater (30) contained within the housing.

Regarding claim 17, Gradon discloses a humidifier (10) with a humidification chamber (4) adapted to receive a volume of water (8) and a water heater (9) that heats the water. The flow of gases passes through the humidification chamber, via a gases inlet (3) and out via a gas outlet (12) and the flow of gases is humidified by evaporating water. See: col. 7, lines 64-66.

Regarding claim 26, Gradon discloses a humidifier (10) with a controller (11) to control the water heater (9) and the level of humidity or temperature of the flow of gases flow. See: col. 7, lines 50-63.

Regarding claim 27, Gradon discloses sensors (34 & 35) that are connected to a controller (11) and conveys a sensed level of humidification of the flow of gases to said controller, and the controller controls the water heater (9) to alter said sensed level of humidification of said flow of gases to a predetermined humidification level. See: col. 13, line 58 - col. 14, line 20.

Regarding claim 28, Gradon discloses a gas outlet temperature of 37°C and containing 44 mg of water vapor per liter, thus meeting the predetermined humidification level as claimed. See: col. 14, lines 4-13.

Regarding claim 29, Gradon discloses connections formed on the open tubular section (42) wherein one side is connected to the humidifier and the other side is connected to a conduit that leads to a patient. See: col. 10, lines 28-47 and figures 3 & 4 wherein the tubular connector is connected to 43 & 44.

Regarding claim 30, Wittmaier teaches connections (24) that are friction fittings. See: figure 2.

Regarding claim 31, Gradon discloses a sensing device (34 & 35) to sense humidity and temperature of a flow of gases after said flow of gases have been humidified by a humidifier (10) and providing feedback to a controller (11) which controls said humidifier a sensing device with an open tubular section (42), a sensor (34 & 35), wherein the open tubular section is coupled to the sensor, such that the sensor is

exposed to the flow of gases and Wittmaier teaches an open tubular section (12) with a sensor (14) that is exposed to a flow of gases through filter material (27).

Regarding claim 32, Gradon discloses a housing (31) containing a sensor (34 or 35), and the housing extending through or residing within the open tubular section (42) and at least part of said housing being exposed to the flow of gases.

Regarding claim 33, Wittmaier teaches the filter material (27) is a semi-permeable (screened or perforated) material. See: col. 3, lines 30-33.

Regarding claim 34, Wittmaier teaches a filter material that is a porous (27 is screened or perforated) media and modification of sizes or the perforations is well within the skill of having ordinary skill in the art and one skilled in the art would preferably make the perforations in the micron level to prevent bacteria from contacting the sensor.

Regarding claims 35-36, Wittmaier teaches a sensing device (figure 2) wherein the sensor (14) has a heating element (30) attached to the housing (12 & 26), which would provide additional heat to the gases; thus it would be reasonably expected that it would minimize saturation of the sensor when the heating element is on as compared to when the heating element is off.

Response to Arguments

7. The examiner acknowledges applicant is diligently working to obtain a newly-executed Declaration and Power of Attorney, and they may hold their response to this objection in abeyance. However, all reasonable objections and rejections are made. Thus, the objection to the Declaration and Power of Attorney has been maintained.

8. Applicant's arguments with respect to claims 1, 3-4, 6, 8, 10-17, and 26-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lammers et al., (6,308,706); Hakala (5,873,361); Ott et al., (6,068,609); Ott et al., ((7,066,902); Rich et al., (2004/0069307); Ottestad (4,288,396); Storsved (5,925,831); Gastrin (5,291,897); Skog (6,000,397); Gull et al (6,138,674); Holscher (5,443,075); Smith (2006/0137445); Gradon et al., (EP 1329240 A1); Ashby (GB 2127299 A1); Lang (DE 3709122 A); Ellman (GB 2190000 A); and Ottestad (GB 2010097 A) which all disclose sensors to be used with breathing tubes and apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLINTON OSTRUP whose telephone number is (571)272-5559. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771

/Clinton Ostrup/
Examiner, Art Unit 3771